UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/577,418	04/27/2006	Takuji Maeda	P29854	3319

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EXAMINER
ALSIP, MICHAEL

ART UNIT	PAPER NUMBER
2186	

NOTIFICATION DATE	DELIVERY MODE
05/17/2011	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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	Application No.	Applicant(s)
Office Action Summary	10/577,418	MAEDA ET AL.
	Examiner	**Art Unit**	
	MICHAEL ALSIP	2186	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on *22 February 2011*.

2a) ☒ This action is **FINAL**.   2b) ☐ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) *24,25,27,28,30-41 and 44-46* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) ☐ Claim(s) _____ is/are allowed.

6) ☒ Claim(s) *24,25,27,28,30-41 and 44-46* is/are rejected.

7) ☐ Claim(s) _____ is/are objected to.

8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.

10) ☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☒ All b)☐ Some * c)☐ None of:

      1.☒ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
   Paper No(s)/Mail Date _____.

4) ☐ Interview Summary (PTO-413)
   Paper No(s)/Mail Date. _____.

5) ☐ Notice of Informal Patent Application

6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 112

1.   The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of
> making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the
> art to which it pertains, or with which it is most nearly connected, to make and use the same and shall
> set forth the best mode contemplated by the inventor of carrying out his invention.

2.   **Claims 24-25, 27-28, 30-41 and 44-46** rejected under 35 U.S.C. 112, first

paragraph, as failing to comply with the written description requirement. The claim(s)

contains subject matter which was not described in the specification in such a way as to

reasonably convey to one skilled in the relevant art that the inventor(s), at the time the

application was filed, had possession of the claimed invention. **Claims 24 and 41** recite

the claim limitation : "wherein when receiving the write command, the controller selects

the first or second recording area **based solely upon the specified data type** of the

received data and writes the received data to the selected area,", however the Examiner

can find no disclosure in the specification that supports a limitation that the selection of

a recording area when a write command is received is based **solely** on the data type

and that no other factor can directly or indirectly be used in the determination of the data

type during the selection process or in other words that a data size cannot be an

indicator of a data type as is done in Ouchi et al. The description in the specification and

figures pertaining to the determining of the data type does not explicitly describe

excluding intermediate steps or information that can be used in this determination.

Further the specification (pg. 23) states that an argument of a write command contains

"information" indicating data type, which Ouchi does with the data size such as data size.

Claim Rejections - 35 USC § 103

3.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4.   The factual inquiries set forth in *Graham* v. *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1.   Determining the scope and contents of the prior art.
2.   Ascertaining the differences between the prior art and the claims at issue.
3.   Resolving the level of ordinary skill in the pertinent art.
4.   Considering objective evidence present in the application indicating obviousness or nonobviousness.

5.   **Claims 24-25, 27-28, 30-41 and 44-46** are rejected under 35 U.S.C. 103(a) as being unpatentable over Ouchi et al. (JP 2000181784), and further in view of Wong et al. (US 6,466,476).

1.   Consider **claim 24**, Ouchi et al. discloses an information recording medium for storing data managed by a file system, to/from which data is written/read via a command received from outside, the information recording medium comprising (¶'s [0024], [0033] and [0039]): a receiving section operable to receive a write command and data from outside ([0024], [0033] and [0039], where the flash memory card receives commands and data from outside); a first recording area in which data writing is

managed in a first access unit; a second recording area in which data writing is managed in a second access unit (¶'s [0018]-[0020] and [0044], where the buffer 19 and memory chip 13 are the first recording area and the buffer 19 and memory chip 14 are the second recording area); and a controller operable to select the first or second recording area according to **a data type specified in an argument at a designated location in** the write command (¶'s [0009]-[0012], [0028] and [0090]-[0099], these cited paragraphs describe a prior art flash memory implementation where boot data is stored in a boot sector, FAT data is stored in FAT area 1, root data is stored in the root directory field 2 and user data is stored in the user data area 3 and there is no discussion of any use of size to determine where to store the data and each of these are recording areas. Further, Ouchi assigns different data types a size value based upon the expected behavior of that type of data and thus the size value is specifying a data type and this size value is part of an instruction code transmitted from the post when writing data and thus is considered part of the write command.); wherein when receiving the write command (¶'s [0028], [0035] and [0038]), the controller selects the first or second recording area depending on a data type of the received data and writes the received data to the selected area (¶'s [0038-[0040] and [0051]-[0053]), and wherein the data type includes a type indicating entity data, and a type indicating file system management information (¶'s [0009], [0012], [0028], [0082] and [0088]).

As for the limitation that selecting the first or second recording area is **based solely upon the specified data type**. As described above, the selecting is based off of a size determination that is assigned a data type, thus the selecting is based on the

data type but also the size that the data type is currently being assigned too and thus does not describe a solitary basis of only data type. However, Wong et al. does teach selecting a recording area based on data type that does not include an intermediate size based determination (Col. 5 lines 18-51 and col. 7 lines 17-34, where a data type is used to determined what storage density to stored the data and the data types are determined by a data type identification logic that examines each portion of streaming data to determine its type and where to store it, such as header data, side information, main data and ancillary data.).

It would have been obvious to one of ordinary skill in the art at the time of the invention to include the teachings of Wong et al. with Ouchi et al. because the techniques used by Wong et al. optimize storage density and quality of output based on the stored data (col. 3 lines 5-12).

2.   Consider **claim 25**, as applied to **claim 24** above, Ouchi et al. discloses wherein the first recording area stores file system management information necessary for managing the file in the file system, and the second recording area stores entity data of the file managed by the file system (¶'s [0012] and [0086]-[0088]).

3.   Consider **claim 27**, as applied to **claim 24** above, Ouchi et al. discloses further comprising an area for storing the address management information for managing correspondence of physical address and logical address of the first and second storage areas (¶'s [0009]-[0012], [0042] and [0048]).

4.   Consider **claim 28**, as applied to **claim 27** above, Ouchi et al. discloses wherein the address management information includes information about write position of data (¶'s [0009]-[0012], [0042] and [0048]).

5.   Consider **claim 30**, as applied to **claim 24** above, Ouchi et al. discloses wherein the first recording area and second recording area are provide on mutually different storage devices (¶ [0029], [0042] and [0107]).

6.   Consider **claim 31**, as applied to **claim 30** above, Ouchi et al. discloses wherein the different storage devices have different characteristics of rewrite life (¶'s [0007], [0013]-[0015] and [0107]).

7.   Consider **claim 32**, as applied to **claim 24** above, Ouchi et al. discloses wherein the controller judges the data type on the basis of a write position of the data (¶'s [0044], [0051]-[0060]).

8.   Consider **claim 33**, as applied to **claim 32** above, Ouchi et al. discloses wherein the receiving section receives from outside information about position or size of the file system management information which is necessary for managing the file in the file system, the information recording medium further includes a FS management information register operable to hold the information about position or size of the received file system management information, and the controller judges the data type on the basis of the value of the FS management information register when receiving the write command (¶'s [0025], [0028]-[0029], [0038] and [0090]-[0099]).

9.   Consider **claim 34**, as applied to **claim 33** above, Ouchi et al. discloses the information recording medium according to claim 33, which, when receiving the

information about position of the file system management information, judges whether
the received position of the file system management information is included in the
second recording area, and if included, moves data of predetermined size including the
received position from the second recording area to the first recording area (¶'s [0015],
[0055]-[0063], where if data is to be written to a sector in memory chip 14 of the second
storage area, data present in the cluster is moved to the buffer (which is part of both the
first and second storage area), old data eliminated and all the data is moved back to the
memory chip 14).

10.   Consider **claim 35**, as applied to **claim 34** above, Ouchi et al. discloses wherein,
when the first and second recording areas are provided on nonvolatile storage devices
having predetermined data erase units, the predetermined size is same as the size of
the larger data erase unit (¶'s [0015], [0055]-[0063], where the size of the data
evacuated to the buffer is the same size of the cluster stored on memory chip 14).

11.   Consider **claim 36**, as applied to **claim 33** above, Ouchi et al. discloses wherein
when receiving a write command, the controller judges the data type by comparing the
value of FS management register with the write address specified by the write
command (¶'s [0057]-[0060]).

12.   Consider **claim 37**, as applied to **claim 24** above, Ouchi et al. discloses wherein
the first and second storage areas are provided on the same storage device (¶ [0029],
[0042] and [0107]).

13.   Consider **claim 38**, as applied to **claim 24** above, Ouchi et al. discloses
comprising: a slot for loading the information recording medium; an access control

section operable to control writing and reading of data in the information recording

medium loaded in the slot; and a file system control section operable to control the file

system established on the information recording medium loaded in the slot, and transmit

data and information about the data type to the information recording medium, when

writing to the information recording medium (¶'s [0033], [0038]-[0041] and [0106]-

[0107]).

14.   Consider **claim 39**, as applied to **claim 38** above, Ouchi et al. discloses wherein

the file system control section specifies, as the data type, a type indicating data entity or

file system management information ([0009], [0012], [0082] and [0088]).

15.   Consider **claim 40**, as applied to **claim 33** above, Ouchi et al. discloses

comprising: a FS management information notice section operable to inform the

information recording medium of information about position and size of file system

management information, wherein the FS management information notice section

informs the information recording medium of information about position and size of file

system management information, prior to writing of the file system management

information (¶'s [0025], [0028]-[0029] and [0090]-[0099]).

16.   Consider **claim 41**, Ouchi et al. discloses a method of control of an information

recording medium, for managing data stored in the information recording medium with a

file system, comprising: managing writing of data to a first recording area in a first

access unit; managing writing of data to a second recording area in a second access

unit; receiving data and a write position together with a write command; selecting the

first or second recording area as data writing area according to **a data type specified**

in an argument at a designated location in the write command (¶'s [0009]-[0012],

[0028] and [0090]-[0099], these cited paragraphs describe a prior art flash memory

implementation where boot data is stored in a boot sector, FAT data is stored in FAT

area 1, root data is stored in the root directory field 2 and user data is stored in the user

data area 3 and there is no discussion of any use of size to determine where to store

the data and each of these are recording areas. Further, Ouchi assigns different data

types a size value based upon the expected behavior of that type of data and thus the

size value is specifying a data type and this size value is part of an instruction code

transmitted from the post when writing data and thus is considered part of the write

command.); and writing the received data to the selected area (¶'s [0018]-[0020] and

[0090]-[0099]), wherein when receiving the write command, the first or second recording

area is selected depending on a data type of the received data (¶'s [0038-[0040] and

[0051]-[0053]), and wherein the data type used in selecting the first or second recording

areas for the received data include a type indicating entity data, and a type indicating

file system management information (¶'s [0009], [0012], [0028], [0082] and [0088]).

As for the limitation that selecting the first or second recording area is **based

solely upon the specified data type**. As described above, the selecting is based off of

a size determination that is assigned a data type, thus the selecting is based on the

data type but also the size that the data type is currently being assigned too and thus

does not describe a solitary basis of only data type. However, Wong et al. does teach

selecting a recording area based on data type that does not include an intermediate

size based determination (Col. 5 lines 18-51 and col. 7 lines 17-34, where a data type is

used to determined what storage density to stored the data and the data types are determined by a data type identification logic that examines each portion of streaming data to determine its type and where to store it, such as header data, side information, main data and ancillary data.).

It would have been obvious to one of ordinary skill in the art at the time of the invention to include the teachings of Wong et al. with Ouchi et al. because the techniques used by Wong et al. optimize storage density and quality of output based on the stored data (col. 3 lines 5-12).

17. Consider **claim 44**, as applied to **claim 41** above, Ouchi et al. discloses wherein the data type is judged on the basis of the write position of the data(¶'s [0044], [0051]-[0060]).

18. Consider **claim 45**, as applied to **claim 24** above, Ouchi et al. discloses comprising transmitting information about data type of writing data to the information recording medium together with a write command (¶'s [0038]-[0040] and [0051]-[0053]).

19. Consider **claim 46**, as applied to **claim 33** above, Ouchi et al. discloses comprising: transmitting information about position and size of file system management information to the information recording medium to set an area for storing the file system management information in the information recording medium; and transmitting a write command together with data and write address to the information recording medium to write the data (¶'s [0025], [0028]-[0029], [0038] and [0090]-[0099]).

Response to Arguments

20.   Applicant's arguments with respect to the new claim amendments to **claims 24**

and 41 have been considered but are moot in view of the new ground(s) of rejection

and explanations given in the art rejections themselves and the 112 1st ¶ rejections.

Conclusion

21.   Applicant's amendment necessitated the new ground(s) of rejection presented in

this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP

§ 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37

CFR 1.136(a).

        A shortened statutory period for reply to this final action is set to expire THREE

MONTHS from the mailing date of this action. In the event a first reply is filed within

TWO MONTHS of the mailing date of this final action and the advisory action is not

mailed until after the end of the THREE-MONTH shortened statutory period, then the

shortened statutory period will expire on the date the advisory action is mailed, and any

extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

the advisory action. In no event, however, will the statutory period for reply expire later

than SIX MONTHS from the date of this final action.

        Any inquiry concerning this communication or earlier communications from the

examiner should be directed to MICHAEL ALSIP whose telephone number is (571)270-

1182. The examiner can normally be reached on Monday through Thursday 9:00AM to

4:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Matt Kim can be reached on 571-272-4182. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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Michael Alsip
Examiner
Art Unit 2186
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/Michael Alsip/
Examiner, Art Unit 2186

May 9, 2011